Subject: Re: 2.5 way using two JBL 2226J with B&C DE 250 & H290 horn
Posted by Wayne Parham on Sun, 13 Jun 2010 22:59:07 GMT
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A few thoughts:

First, a minor clarification. The H290 is not a BiRadial horn. "BiRadial" is a JBL trademark and it is a constant directivity design that has a diffraction slot in the throat. The H290 is a radial horn that provides constant directivity in the horizontal plane. It has smooth side walls with no diffraction slots or edges. Just a quick clarification.

On the dual woofers, I'd do a 2.5 way arrangement, essentially running the top midwoofer and

done, and minimizes your need to retest. The longest part of a speaker design is the test/measure/modify/retest cycle.

You can make the bottom box larger, if you want, for greater bass extension. Run the bottom woofer off the midwoofer crossover output, but add a large coil in series to limit its output to the bass range. It will have slow gradual rolloff, with a lot of overlap, and that will tend to mitigate floor bounce and any other room modes in the overlap region.

I personally like using vented boxes, but with a slightly overdamped alignment. They have smooth gradual rolloff like a sealed box, but the excursion reduction and extra extension of a vented box. I think that's the best way to run woofers with electro-mechanical specs like the JBL 2226.
Room gain, pressure region, modal region and reverberent region